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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,681	11/21/2003	Harry J. Scofield	FMC-1035	1305
42419	7590	01/14/2005	EXAMINER	
PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD SUITE 365 HOFFMAN ESTATES, IL 60195			CHAN, SING P	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

10/719,681

Applicant(s)

SCOFIELD ET AL.

Examiner

Sing P Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration..
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/26/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim interpretation***

1. Regarding claims 5 and 16, the claims recite a composition with MDI. However, the Specification does not provide a description of MDI. The examiner will interpret MDI as meaning Methylenediphenylene diisocyanates. Request verification.

### ***Specification***

The disclosure is objected to because of the following informalities: The Specification recites "poly(oxy(emthyl-1,2-ethanediyl)), Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy)" on page 7, lines 18-19. It is unclear what is meant by "," between "poly(oxy(emthyl-1,2-ethanediyl))" and "Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy)."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. Claims 3-7 and 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 15-19, the claims' preamble recited an apparatus for coating a freezer enclosure, however, the body of the claims recite features of a coating. It is unclear if the applicant intended to claim an apparatus or a coating. For the purpose of examination, "a coating for a freezer enclosure" will be assumed.

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3. Claim 3 recites the limitation "polyurea coating" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 4 and 16, the claims recite "poly(oxy(ethyl-1,2-ethanediyl)), Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy)." It is unclear what is meant by "," between "poly(oxy(ethyl-1,2-ethanediyl))" and "Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy)."

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 10, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuuzaburou et al (JP 54-123172) in view of Toshio (JP 57-104747).

Regarding claims 1, 2, and 10, Yuuzaburou et al discloses a method of coating a refrigerator. The method includes providing a rough cloth with intersecting elements forming a plurality of openings, coating the cloth with tackifiers, i.e. adhesive, and using the rough cloth as a lining to the wall of the refrigerators. (See English Abstract of JP 54-123172) Yuuzaburou et al is silent as to the coating the cloth with polyurea coating. However, attaching a screen to the wall surface prior to applying the polyurea coating is well known and conventional as shown for example by Toshio. Toshio discloses a method of forming a thermosetting resin foam coated wall. The method includes

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providing a metal net or rough woven cloth, i.e. a screen, fixing the screen to the wall surface, and applying a thermosetting resin such as urea resin to the screen, which would permeate the openings of the screen to the wall. (See English abstract of JP 57-104747)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a screen and fixing the screen to any wall surface such as a freezer or refrigerator prior to applying the polyurea coating as disclosed by Toshio in the method of Yuuzaburou et al to avoid separation of the coating from the surface of the wall. (See English Abstract of JP 57-104747)

Regarding claims 15 and 20, Yuuzaburou et al discloses a liner for a refrigerator. The coating includes a rough cloth with intersecting elements forming a plurality of openings, coating with a tackifier, i.e. adhesive, and attached to the wall of the refrigerators for foam lining. Yuuzaburou et al is silent as to the coating includes polymer foam. However, attaching a screen to the wall surface prior to applying the polyurea foam coating is well known and conventional as shown for example by Toshio. Toshio discloses a wall structure with a thermosetting resin coating. The wall structure includes a metal net or a rough cloth, i.e. a screen, fixed to the wall surface, and a thermosetting resin such as urea resin coating the screen, which would permeate the openings of the screen to the wall. (See English abstract of JP 57-104747)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a screen fixed to any wall surface such as a freezer or refrigerator prior to applying the polyurea coating as disclosed by Toshio in the coating

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of Yuuzaburou et al to avoid separation of the coating from the surface of the wall. (See English Abstract of JP 57-104747)

Regarding claim 17, Yuuzaburou et al as modified above is silent as to the screen is fixed to the wall by fasteners adhering to the screen. However, using fasteners to adhere the screen to the wall is well known and conventional as shown for example by Toshio. Toshio discloses the screen is attached to the wall by adhesive tape, adhesive, nail, and rivet. (See English Abstract of JP 57-104747)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any fasteners to attach the screen to the wall as disclosed by Toshio in the coating of Yuuzaburou et al, which are all equivalent means to attach the screen to the wall.

Regarding claims 18 and 19, Yuuzaburou et al as modified above is silent as to the screen is a wire mesh or metal netting. However, providing a screen as a wire mesh or metal netting is well known and conventional as shown for example by Toshio. Toshio discloses the screen attached to the wall is a wire lath, i.e. wire mesh, or metal netting. (See English Abstract of JP 57-104747)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the screen as a wire mesh or metal netting as disclosed by Toshio in the coating of Yuuzaburou et al to avoid separation of the coating from the surface of the wall. (See English Abstract of JP 57-104747)

6. Claims 3-8, 11-13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuuzaburou et al (U.S. 3,893,956) in view of Toshio (JP 57-104747)

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as applied to claims 1 and 15 above, and further in view of Zimmerman et al (U.S. 5,189,075).

Regarding claims 3-5 and 16, Yuuzaburou et al as modified above is silent as to composition of the polyurea is a two-components polyurea with first composition comprising N,N dialkylamino diphenylmethane, diethyltoluenediamine, poly(oxy(methyl-1,2-ethanediyl), Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy), glyceryl poly(oxypropylene) triamine, diphenylmethane diisocyanate, modified MDI and MDI homopolymer and the percentage of each compounds. However, using these compounds to form polyurea coating is well known and conventional as shown for example by Zimmerman et al. Zimmerman et al discloses a coating and method of forming the coating by combining two components with the composition of UNILINK 4200, JEFFAMINE D2000, JEFFAMINE T5000, ETHACURE 100, and RUBINATE, which are the same compounds as recited above with the range of percentage of composition of each components. (Col 7, line 35 to Col 9, line 35 and Table II)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide UNILINK 4200, JEFFAMINE D2000, JEFFAMINE T5000, ETHACURE 100, and RUBINATE as N,N dialkylamino diphenylmethane, diethyltoluenediamine, poly(oxy(methyl-1,2-ethanediyl), Alpha-(2-aminomethylethyl) omega-(2-aminomethylethoxy), glyceryl poly(oxypropylene) triamine, diphenylmethane diisocyanate, modified MDI and MDI homopolymer as disclosed by Zimmerman et al in the coating and method of Yuuzaburou et al as modified by Toshio to provide a coating with light stability, fast cure, water insensitivity, excellent physical properties such as

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tensile strength and abrasion resistance, easy application such as spray application and long term storage stability. (Col 1, lines 19-27)

Regarding claim 7, Yuuzaburou et al as modified above is silent as to the coating is applying under pressure. However, applying the coating under pressure is well known and conventional as shown for example by Toshio. Toshio discloses applying the coating by spraying, which the coating is under pressure as it is applied. (See English Abstract)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the coating under pressure such as by spraying as disclosed by Toshio in the method of Yuuzaburou et al to allow the coating to be applied quickly and easily.

Regarding claims 8 and 13, Yuuzaburou et al is silent as to the reaction of forming the polyurea coating is cured at a temperature of 150°C. However, curing the coating at 150°C and applying the coating at ambient temperatures are well known and conventional as shown for example by Zimmerman et al. Zimmerman et al discloses the polyurea coating is heated to 150°C as the coating is applied and post curing by heating, (Col 6, line 67 to Col 7, line 5 and Col 9, lines 12-36) and the reaction of the polyurea requires heating and one in the art would appreciate application of the coating at ambient to allow faster reaction and curing of the coating.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to logically coat the surface at ambient temperatures and heating the polyurea to cure the coating as disclosed by Zimmerman et al in the method of



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Yuuzaburou et al as modified by Toshio to allow for faster heating and curing of the coating.

Regarding claims 6 and 11, Yuuzaburou et al as modified above recited applying the polyurea coating by spray application, but is silent as to the mixing the composition under pressure. However, mixing the polyurea coating under pressure is well known and conventional as shown for example by Zimmerman et al. Zimmerman et al discloses forming a polyurea composition by stirring the composition while heating and under pressure. (Col 8, lines 32-45)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mix the composition under pressure as disclosed by Zimmerman et al in the method of Yuuzaburou et al as modified by Toshio to provide a polyurea for spray applications as foam with fast cure, excellent properties such as tensile strength and abrasion resistance, and ease of application. (Col 1, lines 17-27)

Regarding claim 12, Yuuzaburou et al as modified above is silent as to heating the two components of the coating prior to mixing. However, heating the components of the coating prior to mixing is well known and conventional as shown for example by Zimmerman et al. Zimmerman et al discloses heating the components prior to mixing to form the polyurea. (Col 8, lines 32-45)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to heat the components prior to mixing as disclosed by Zimmerman et al in the method of Yuuzaburou et al as modified by Toshio to provide a polyurea for

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spray applications as foam with fast cure, excellent properties such as tensile strength and abrasion resistance, and ease of application. (Col 1, lines 17-27)

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuuzaburou et al (U.S. 3,893,956) in view of Toshio (JP 57-104747) as applied to claim 1 above, and further in view of BlasterMaster.

Yuuzaburou et al is silent as to cleaning the surface of the wall with soda blasting prior to applying the coating. However, cleaning a surface prior to coating is well known and conventional as shown for example by BlasterMaster. BlasterMaster discloses a method of cleaning the surface with soda blasting to remove residue, paint, oil, grease or cleaning the surface, which provide a clean surface for coating. (See BlasterMaster, Page 1)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a clean surface by soda blasting as disclosed by BlasterMaster in the method of Yuuzaburou et al as modified by Toshio to clean the surface without harming the substrate or the environment.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yuuzaburou et al (U.S. 3,893,956) in view of Toshio (JP 57-104747) as applied to claim 10 above, and further in view of Mitsuhiro (JP 07-99949).

Yuuzaburou et al as modified above is silent as to sanitizing the cured polyurea coating with a controlled steam injection. However, sanitizing using steam injection is well known and conventional as shown for example by Mitsuhiro. Mitsuhiro discloses sanitizing a freezer with steam, which with the polyurea coating applied to the

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refrigerator or freezer wall would also sanitize the coating. (See English Machine Translation of JP 07-99949, Page 1, paragraphs 6 and 7)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to sanitize the refrigerator or freezer with the polyurea coating as disclosed by Mitsuhiro in the method of Yuuzaburou et al as modified by Toshio to prevent adhesive of microorganism on the wall surface. (See English Machine Translation of JP 07-99949, Page 1, paragraph 2)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Friday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher A Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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